

## CLAIMS

1. A process for improving the pour point of hydrocarbon feeds comprising paraffins containing more than 10 carbon atoms, in which the feed is brought into contact with a catalyst containing at least one dioctahedral 2:1 phyllosilicate and at least one hydrodehydrogenating element in the metallic form.
2. A process according to claim 1, in which the phyllosilicate has an interplanar distance of at least  $2.00 \times 10^{-9}$  m and comprises pillars based on at least one oxide of at least one element selected from the group formed by elements from groups IVB, VB, VIB, VIII, IB, IIB, IIA and IVA in the space between the sheets.
3. A process according to claim 2, in which the pillars are based on at least one oxide selected from the group formed by  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{TiO}_2$ ,  $\text{ZrO}_2$  and  $\text{V}_2\text{O}_5$ .
4. A process according to any one of the preceding claims, in which the phyllosilicate contains fluorine.
5. A process according to any one of claims 2 to 4, in which the interplanar distance is at least  $2.65 \times 10^{-9}$  m.
6. A process according to any one of claims 2 to 5, in which the interplanar distance is at least  $3.0 \times 10^{-9}$  m.
7. A process according to any one of claims 2 to 6, in which the interplanar distance is at least  $3.3 \times 10^{-9}$  m.
8. A process according to any one of the preceding claims, in which the catalyst also comprises at least one substance selected from the group formed by alumina, silica, magnesia, titanium oxide, zirconia, titanium phosphates, zirconium phosphates, boron oxide and charcoal.
9. A process according to any one of the preceding claims, in which the hydrodehydrogenating element is a noble group VIII metal.

10. A process according to claim 9, in which the element is selected from the group formed by platinum and palladium.
11. A process according to any one of the preceding claims, in which the process is carried out at 170-500°C, at 1-250 bars, at an hourly space velocity of  $0.05-100 \text{ h}^{-1}$ , and in the presence of 5 50-2000 litres of hydrogen per litre of feed.
12. A process according to any one of the preceding claims, in which the feed is selected from the group formed by kerosenes, jet fuels, middle distillates, vacuum residues, gas oils, FCC middle distillates, hydrocracking residues, base stock, synthesised paraffins from the Fischer-Tropsch process, polyalphaolefins, synthesised oils and n-alkylcycloalkanes.